Applicant: Motorola Inc FCC ID: AZ489FT5801



Date: October 30, 2000

Mr. Steve Dayhoff Authorization & Evaluation Division Federal Communications Commission Laboratory 7435 Oakland Mills Road Columbia, MD 21046

Re: Correspondence Number 16692 regarding 731 Confirmation Number EA98633

Dear Mr. Dayhoff;

This correspondence is provided in response to the request for information dated October 19, 2000 concerning transmitter with FCC ID: AZ489FT5801. In addition to the response provided below, we are enclosing a revised Users Manual and revised Exhibit 12. Exhibit 12 now lists the carry case NTN9551A that is included in the SAR report.

- Q1. Even though references to GSM operations have been taken out of the SAR report, please confirm that the device will have GSM hardware and functions included but not applicable for this filing. We need to identify this because if the device may be produced with or without GSM functions, the SAR could be different and we have been identifying such non-applicable operations on other grants; please confirm.
- A1. The device hardware will always have GSM functionality included. The GSM SAR data was removed from the Revision B SAR report only towards simplification and to include only that data pertinent to the FCC submission.
- Q2. Reply included photos of a specific belt-clip/leather carrying-case, but Section 5.0 of the revised SAR report has indicated two different leather carrying-cases; please clarify if these would change or affect the body-worn SAR submitted for this filing.
- A2. The SAR tests included both carry cases as indicated in Section 5.0. Tests at the center of the band, with the antenna both extended and retracted, indicated that carry case NTN9247A resulted in higher SAR than carry case NTN9551A. Therefore the balance of the body worn tests were conducted with carry case NTN9247A. These results are consistent with the spacing (antenna base to phantom) of 25 mm provided by carry case NTN9247A as compared to 36 mm provided by carry case NTN9551A.
- Q3. Page 75 of the submitted manual (Safety and General Information), second paragraph, describes standard operating positions specified by the FCC for SAR testing. There is NO formally released standard operating positions from the FCC for testing SAR. While standards

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organizations are still working to develop these procedures, our current policy is to test specific devices to the extent that SAR compliance can be demonstrated and ensured for the particular device. This information is not exactly correct and could confuse or mislead users. Please review and revise accordingly. Note: similar issues (next 2 also) have also been raised to several other recent filings from others.

A3. The manual has been revised to "Tests for SAR are conducted using standard operating positions reviewed by the FCC......".

NOTED THAT Q4 AND Q5 ARE MISSING FROM THE ORIGINAL FCC CORRESPONDENCE 16692

Q6. On the same page of that manual (page 75), the fourth paragraph indicates FCC RF emission guidelines, which should be RF exposure guidelines. Please review and revise the info accordingly.

A6. The manual has been revised to "..RF exposure guidelines..."

Q7. In the body-worn instructions section of the manual, the SAR for this device is close to the display region, but this section of the manual suggests users to keep the ANTENNA at least 2.5 cm from a person's body. When the phone is not used next to the ear or carried with the specific belt-clip/holster, there may not be sufficient test data to fully support this 2.5 cm distance. Please review and revise this section of the manual accordingly.

A7. The manual has been revised to "If you do not use a body-worn accessory, ensure the antenna and radio product is at least one inch (2.5 cm) from your body when transmitting."

Q8. Since this device has an integral antenna, The actual peak ERP level must be obtained using the FCC recommended test procedure from ANSI/TIA/EIA-603-1992, Section 2.2.17. This procedure requires the use of a reference dipole antenna to be substituted for the EUT on the test table, and then driven by a signal generator to duplicate the original reading on the spectrum analyzer that was produced by the EUT. The signal generator level in dBm would be the true ERP.

A8. We verified the ERP data shown in Exhibit 12.1.3 using the method recommended by the FCC. Data was taken at the Florida Atlantic University, EMI Research Facility, and the results obtained are comparable to those already posted.

Contact me at (954) 723-5793 if you require any additional information.

Regards,

Mike Ramnath FCC Liaison

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